Amendments to the Specification

Please replace paragraph [0013] with the following amended paragraph:

01

[0013] Figures 3A-3C ~~and 3B~~ show alternate structures that can be used in place of balls to constrain the sphere.

Please replace paragraph [0029] with the following amended paragraph:

02

[0029] The sphere 105 may be constrained using structures other than support balls 207 and upper balls 209. For instance, hemispheres and smaller portions of spheres can be used in the place of balls. Figures 3A-3B show[[s]] some possible substitute structures for support balls 207 and upper balls 209. The best structures have surfaces that will contact the sphere 105 at approximately a single point. The examples shown in Figures 3A-3B have spherical surface portions that will contact the sphere 105 at approximately a single point. The word "approximately" is used because it is almost impossible to manufacture such perfect surfaces that will contact and remain in contact with each other at exactly a single point.

Please replace paragraph [0030] with the following amended paragraph:

03

[0030] Other structures may be used that have many points of contact with the sphere 105. Figure 3[[B]]C illustrates one such example. However, these structures generate higher frictional forces and make alignment of the sphere 105 difficult. There are other well-known methods for supporting the sphere 105 that will maintain rotational freedom about any axis. For instance, using a conical surface to support a sphere is a method well known in the art.

Please replace paragraph [0033] with the following amended paragraph:

04

[0033] If the magnets 401 do not have enough magnetic pull on the sphere 105, it may be necessary to apply a downward force upon the sphere 105 to prevent it from lifting off of the magnets 401 during the alignment process. Figure 4B shows one possible means for applying a downward force 403 upon the sphere 105. A cover 405 for the housing 203 (not shown) has a contact 407 mounted on a spring [[309]] 409. When the cover 405 is attached to the housing 203, the contact 407 pushes against the surface of the sphere 105. The spring [[309]] 409 provides the downward force 403 to keep the sphere 105 from lifting off of the magnets 401 while it is being aligned.

Amendments to the Claims

This list of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An optomechanical system comprising:

a sphere adapted to contain an optical element;

a first set of curved surfaces in contact with the sphere; and

a second set of curved surfaces in contact with the sphere, opposed to the first set of curved surfaces,

the first and second set of curved surfaces so constructed, secured, and arranged such that the sphere has freedom for prescribed movement when required, but is otherwise securely held stationary.

2. (Original) The system of claim 1, wherein each member of the first set of curved surfaces contacts the sphere at approximately just one point, and each member of the second set of curved surfaces contacts the sphere at approximately just one point.

3. (Original) The system of claim 2, wherein each member of the first set of curved surfaces is a ball, and each member of the second set of curved surfaces is a ball.

4. (Original) The system of claim 3, wherein each ball in the first set of balls has a corresponding ball in the second set of balls, wherein each ball in the first set applies a force to the sphere that is collinear with and opposite to a force that the corresponding ball in the second set applies to the sphere.

5. (Original) The system of claim 4, further comprising a housing adapted to receive the sphere, first and second set of balls.

6. (Original) The system of claim 5, further comprising a lid attached to the housing to apply a downward force upon the first set of balls, sphere, and second set of balls.

7. (Original) The system of claim 6, wherein the sphere and each ball in the first and

second set of balls are made of steel.

8. (Original) The system of claim 6, wherein each ball in the first set comprises a ceramic ball.

9. (Original) The system of claim 8, wherein each ball in the second set comprises a steel ball.

10. (Original) The system of claim 6, wherein each ball in the second set comprises a ceramic ball.

11. (Currently amended) The system of claim 1, wherein the sphere includes an opening adapted for insertion of an alignment tool for rotating the sphere while the first and second set of curved surfaces hold the sphere in position.

12. (Original) The system of claim 11, wherein the sphere and the first and second set of curved surfaces have finishes that permit smooth rotation of the sphere in response to forces applied via the alignment tool while the curved surfaces apply forces required for holding the sphere in alignment during normal use.

13. (Original) The system of claim 1, wherein the first set of curved surfaces comprises three curved surfaces and the second set of curved surfaces also comprises three curved surfaces.

14. (Original) The system of claim 13, wherein the first set of three curved surfaces comprises 3 balls and the second set of three curved surfaces also comprises 3 balls.

15. (Currently amended) An optomechanical system comprising:

a sphere adapted for mounting an optical element in the sphere, the sphere having an opening shaped to receive an alignment tool and made of a magnetically attractive material;

a housing adapted to receive the sphere; and

a plurality of magnets attached to the housing and magnetically attracted to the sphere, the magnets so constructed and arranged in the housing such that the sphere has

freedom for prescribed movement when required by overcoming the magnetic attraction between the sphere and the magnets, but is otherwise held stationary by the magnetic attraction.

16. (Canceled)

17. (Previously presented) The system of claim 15, further comprising a cover attached to the housing.

18. (Original) The system of claim 17, further comprising a spring attached to the cover for applying a downward force upon the sphere.